Hi-Speed Cotton Stalk Puller/Chopper SPC-4/SPC-6

2nd Edition, Beg. S/N 530000



Read this manual before using this product. Failure to follow the instructions and safety precautions in this manual can result in serious injury or death.

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Hi-Speed Cotton Stalk Puller/Choppers are manufactured by Amadas Industries.

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Warranty Statement



Welcome To Amadas Industries

With origins dating back to 1963, Amadas Industries and its predecessors have a long history of providing high quality, reliable, innovative equipment for the farming industry. Amadas equipment is currently at work throughout the United States and in many other countries. This equipment includes machinery such as the Magnum Fource Peanut Combine, Reel Rain Traveler Irrigation System, Tree Bark Processing and Packaging Machinery, and the Hi-Speed Cotton Stalk Puller/Chopper.

Hi-Speed Cotton Stalk Puller/Chopper

Congratulations on your purchase of the AMADAS Hi-Speed Cotton Stalk Puller/Chopper (SPC). The SPC is a patented, uniquely integrated system used for extracting and chopping up cotton stalks and their roots.

This system provides you with a significant advantage over conventional mowing and discing. The SPC removes each stalk's entire root system, effectively breaking up the life cycle of insects and diseases that

overwinter in the remaining stalk and root usually left behind by shredders and mowers.

The effectiveness of the SPC lies in the twopart system that is incorporated into a single machine. The tandem, shaft-mounted, heavy-duty turf tires rotate against one another to grip the stalks, while the forward motion of the tractor pulls the stalks and root systems out of the ground and then releases them. The rotating blade chopping system at the rear of the machine then cuts the stalks and roots into small pieces.

The AMADAS Hi-Speed Cotton Stalk Puller/Chopper is designed to operate at high speeds and handle the toughest stalks. The SPC-4 is adjustable for 36", 38", or 40" row widths; the SPC-6 is adjustable for 36" or 38" rows.



Benefits

Your AMADAS Hi-Speed Cotton Stalk Puller/Chopper will provide you with the following benefits:

- Increased Residue Clearing Capability. Removes and chops cotton stalks and their root systems in a single operation.
- Enhanced Soil Aeration. Double bevel blade design provides deep soil penetration.
- High Speed Operation. With the machine operating within its normal range of 6-10 MPH, you can easily cover over 100 acres per day.
- Low Operating Costs. Per acre costs are minimal, as removal and chopping processes are completed in one machine pass.

Features

The following are some of the significant features of the AMADAS SPC Hi-Speed Cotton Stalk Puller/Chopper.

Pulling System

For each row, tandem, shaft-mounted, 18" diameter turf tires rotate against each other to grip and hold the stalks, while the forward motion of the tractor pulls the root systems out of the ground.

Chopping System

Eight, drum mounted, double beveled, replaceable, hardened steel blades per row provide linear rotary cutting action.

Total number of blades: 32 (SPC-4); 48 (SPC-6)

Frame

The machine is made up of heavy-duty, welded box construction with a 6" x 10" main frame.

Drive System

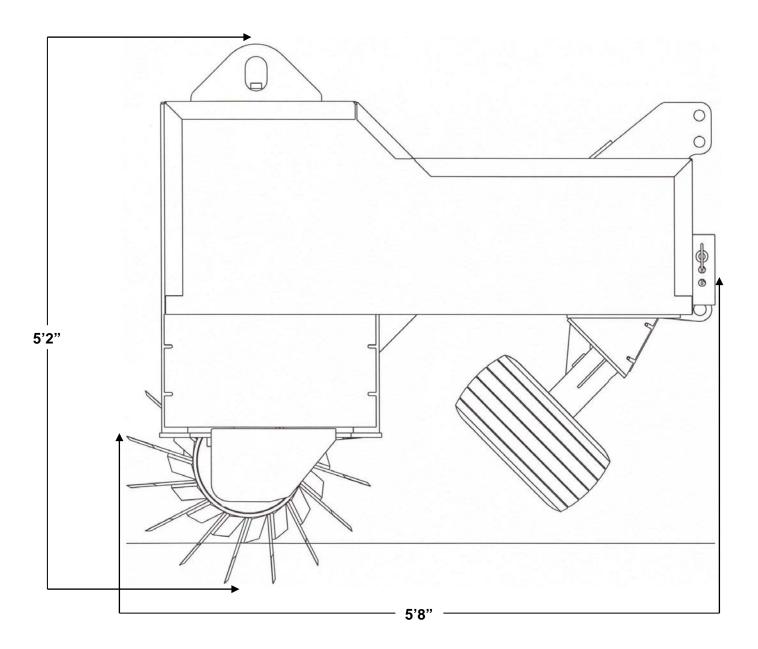
The entire drive system is ground driven using heavy duty #80 chain drives, gear boxes, and telescoping drive lines. With the pulling wheels driven off of the chopping rotor, the proper wheel speed is assured regardless of ground speed. Drive train safety is provided by a bi-directional ratchet clutch.

Specifications

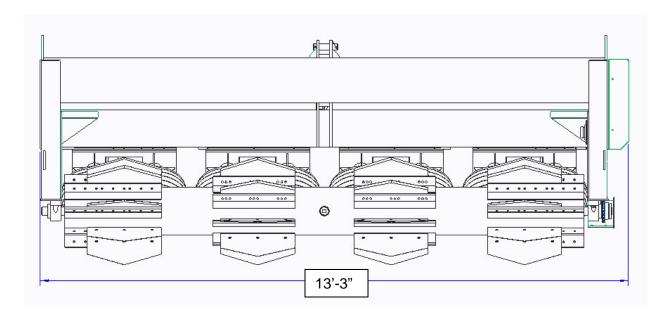
	SPC-4	SPC-6
Number of Rows:	4	6
Row Widths:	36", 38", 40"	36, 38"
Recommended Speed Range:	6-12 MPH	6-12 MPH
Tractor Requirements:	Standard CAT III or CAT IVN 3-Point or Quick hitch	Standard CAT III or CAT IVN 3-Point or Quick hitch
Tractor Recommendation:	Minimum 160 HP tractor (geared to operate at 10+ MPH)	Minimum 190 HP tractor (geared to operate at 10+ MPH)
Overall Length:	13'3" (159")	19'4" (232")
Overall Width:	5'8" (68")	5'8" (68")
Overall Height:	5'2" (62")	5'4"(64")
Number of Blades:	32	60
Shipping Weight (approx.):	4,800 lbs	9,800 lbs
Operating Weight (approx.):	6,500 lbs	11,500 lbs
Drum Diameter:	12"	16"

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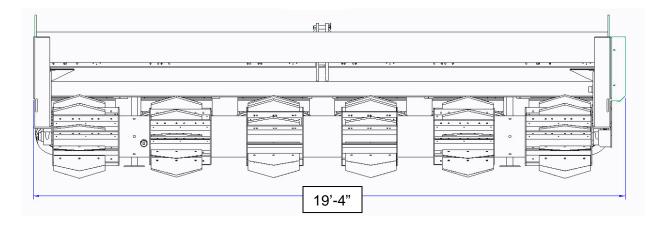
Dimensions (SPC-4)



SPC-4



SPC-6



1.

Safety_

Safety at All Times!	2
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Safety Decals	



This symbol means:

ATTENTION!

BECOME ALERT!

YOUR SAFETY IS INVOLVED!

Safety at All Times!

You, the operator, can help avoid accidents or injury by observing the precautions in this section and insisting that others working for or with you also follow them.

- Do NOT attempt to operate this equipment under the influence of drugs or alcohol, or prescription/over-thecounter drugs that may cause impairment.
- This equipment is dangerous to children and persons unfamiliar with its operation. They should never be allowed to operate this machinery or remain in its vicinity while in operation.
- Only a trained operator familiar with this machinery and trained in its operation should be allowed to operate this machine. Do NOT allow any person to operate or perform maintenance on this machine until he or she has read this manual and understands the safety precautions.
- To prevent injury or death, use a tractor equipped with a Rollover Protective System (ROPS).
- NEVER exceed the limits of a piece of machinery. If its ability to perform a job safely is in question, DO NOT TRY TO DO THAT JOB.

Shields

- Certain photographs or illustrations in this manual may show a safety shield removed. However, NEVER operate this machine without all shields correctly in place!
- If a shield must be removed to make a repair or adjustment, replace the shield prior to use.

Safety Decals

- Replace any CAUTION, WARNING, DANGER, or instruction safety decal that is not readable or is missing.
- Do NOT paint over, remove, or deface any safety sign or warning decals.

Look for the Safety Alert Symbol!



The Safety Alert Symbol indicates a potential safety hazard to personnel and that extra precaution must be taken. When you see this symbol on the machine, remain alert and carefully read the message that follows it. ALWAYS follow the recommended precautions and safe operating procedures accompanying this symbol. If you have any questions, please contact your dealer or the manufacturer.

Safety Signal Words Used

Three safety signal words are used on the machine and in this manual to indicate the degree or level of hazard seriousness. These three words are:

ADANGER

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

AWARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

ACAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

Safety Practices

Transport Machine Safely

- Comply with state and local laws.
- Be familiar with tractor operations and follow all safety instructions in the tractor's manual.
- Before moving away, always check immediate vicinity (e.g., for children).
- NEVER exceed a maximum speed of 20 MPH.
- Always adapt ground speed to road or field conditions, making sure you have adequate control of steering and stopping.
- Avoid sharp turns, holes, ditches, and obstructions which may cause the tractor to tip, particularly on hillsides.

- Use following tow load weight ratios as guidelines:
 - 20 MPH when weight is less than or equal to the weight of the tractor
 - 10 MPH when weight is more than weight of the tractor
- <u>NEVER</u> tow a load more than double the weight of the tractor!
- Sudden braking can cause a towed load to swerve and upset. Reduce speed if towed load is not equipped with brakes.







Avoid Electrical Power Lines

- Make sure all components are secured in the proper position before transporting machine (for example: basket bin lip extension, mower deck, off-loading conveyor, etc.).
- AVOID all lines, particularly low-hanging electrical cables, during transport.



ADANGER

Contact with electrical lines will cause the operator to suffer severe electrical shock or possibly death.

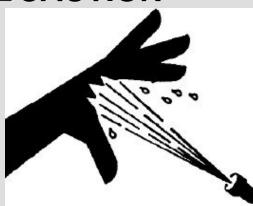
Use a Safety Chain

- Use a safety chain to help control machinery if it separates from the tractor drawbar.
- Use a chain with strength rating equal to greater than the gross weight of the towed machine.
- Attach the chain to the tractor drawbar support, allowing only enough slack in the chain for turning.
- Do NOT use a safety chain for towing.



Avoid High Pressure Fluids

A CAUTION





- Use extreme care when working with hydraulic components and high pressure sprays.
- Escaping fluid or spray under pressure can penetrate the skin, causing serious injury.
- To avoid injury, relieve pressure before disconnecting hydraulic or other lines.
- Tighten all connections before applying hydraulic or spray pressure.
- Search hoses/connections for leaks with a piece of cardboard.
- Take appropriate safety measures to protect hands, body, and face from high pressure fluids.
- Always wear appropriate safety gear to protect hands, body and face from exposure to high pressure fluids.
- Never try to block the flow or search for leaks of high pressure fluids with your hands even if wearing gloves. High pressure fluids can penetrate gloves as well as your skin.
- Always avoid direct contact of any high pressure fluid low.
- If an accident occurs, respond as follows:

- Seek medical treatment immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.
- Alert the medical professionals that a fluid injection or high pressure spray injury has occurred.
- Give information on the type of fluid or spray and time the accident occurred. If known, include the amount of fluid injected and/or the system injection pressure.
- Surgery will most likely be required, so no food or drink for the affected person.

Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available in English from Deere & Company Medical Department in Moline, Illinois, U.S.A., by calling 1-800-822-8262 or +1 309-748-5636.

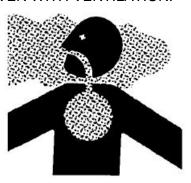
VERY IMPORTANT!! Although in some cases there is little or no pain from an injection or high pressure spray accident, THIS IS A SERIOUS EVENT THAT MUST BE TREATED BY MEDICAL PROFESSIONALS!!!

Work in Ventilated Area

Engine exhaust fumes can cause sickness or death.

- If it is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension.
- If you do not have an exhaust pipe extension, open the doors and get outside air into the area.

AMADAS DOES NOT RECOMMEND RUNNING ANY ENGINE IN AN ENLCOSED AREA EVEN WITH VENTILATION.



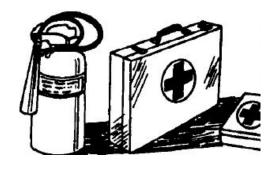
Handle Fuel Safety – Avoid Fires

- Handle fuel with care; it is highly flammable.
- Do NOT refuel the machine while smoking or when near open flame or sparks.
- Always stop engine before refueling machine.
- Fill fuel tank outdoors.
- Prevent fires by keeping machine clean of accumulated trash, grease, and debris.
- Always clean up spilled fuel.



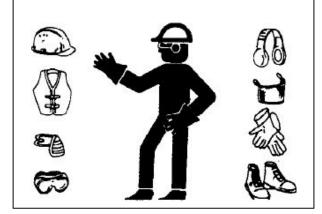
Prepare for Emergencies

- Be prepared if a fire starts.
- Keep a first aid kit and fire extinguisher handy.
- Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



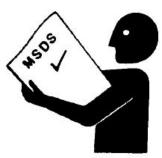
Wear Protective Clothing

- Wear close-fitting clothing and safety equipment appropriate to the job.
- Operating equipment safely requires the full attention of the operator. Do NOT wear radio or music headphones while operating machine.



Handle Chemical Products Safely

- Direct exposure to hazardous chemicals can cause serious injury. Potentially hazardous chemicals used with AMADAS equipment include such items as lubricants, coolants, paints, and adhesives.
- Before you start any job using a hazardous chemical, check the MSDS so that you are aware of the risks and know how to proceed safely. Carefully follow all procedures, using only recommended equipment.
- See your AMADAS dealer for MSDS on chemical products used with AMADAS equipment.



Avoid Contact with Moving Parts

- Wear close-fitting clothing to avoid entanglement with moving parts.
- Keep hands, feet, and clothing away from power-driven parts.
- Never clean, lubricate or adjust machine when it is running.



Remove Accumulated Crop Debris

- The buildup of chaff and crop debris near moving parts or heat sources is a hazard.
- Check and clean these areas frequently.
- Before performing any inspection or service, engage parking brake, turn off engine, and remove key.

Practice Safe Maintenance

- Understand the service procedure before doing work. Use proper tools and refer to the User Manual.
- Keep service area clean and dry.
- Lower machine to ground, engage parking brake, turn off engine, and remove key before performing maintenance.
- Allow time for the machine to cool completely.
- Never lubricate, service, or adjust machine while it is moving.
- Keep hands, feet, and clothing from powerdriven parts.
- Securely support any machine elements that must be raised for service work.

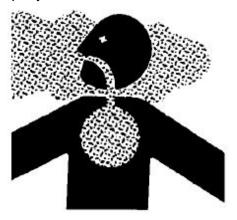
- Keep all parts in good condition and properly installed.
- Fix any damage immediately; replace worn or broken parts.
- Keep the machine free of any buildup of grease, oil, or debris.



Remove Paint/Protective Coating Before Welding Or Heating

- Avoid potentially toxic fumes and dust.
- Hazardous fumes can be generated when paint or coatings are heated by welding, soldering, or by using a torch.
- Do all work outside or in a well-ventilated area.
- Remove paint/coatings before welding or heating:
 - If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
 - If you use solvent or paint stripper, remove stripper with soap and water before welding.
 - Remove solvent or paint stripper containers and other flammable material from the area.

- Allow any fumes to disperse for at least
 15 minutes before welding or heating.
- Do NOT use a chlorinated solvent in areas where welding will take place.
- Do all work in an area that is wellventilated to carry toxic fumes and dust away.
- Dispose of paint/coatings and solvent properly.



Avoid Using Heat Near Pressurized Fluid Lines

- Flammable spray can be generated by heating near pressurized fluid lines, resulting in severe burns to yourself and bystanders.
- Do NOT heat by welding, soldering, or using a torch near pressurized fluid lines or other flammable materials.
 Pressurized lines can accidentally burst when heat goes beyond the immediate flame area.



Keep Riders off of Machine

- Only allow the operator on the machine. Riders obstruct the operator's view, which results in the machine being operated in an unsafe manner.
- Riders are subject to injury such as being thrown off of the machine.
- Children should NEVER be allowed on the machine.

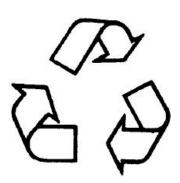


Dispose Of Waste Properly

Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste includes items such as oil, fuel, coolant, brake fluid, filters, and batteries.

- Use leak-proof containers when draining fluids.
- Do NOT use food or beverage containers that may mislead someone into drinking from them.
- Do NOT pour waste onto the ground, down a drain or into a water source.

 Inquire about the proper way to recycle or dispose of waste from your local environmental or recycling center, FEMA, or from your AMADAS dealer.



Support Machine Properly

- Always lower the attachment or implement to the ground before you work on the machine. If the work requires that the machine or attachment be lifted, provide secure support for them. If left in a raised position, hydraulically supported devices can settle or leak down.
- Do NOT support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load.
- Do NOT work under a machine that is supported solely by a jack.
- Follow all safety procedures in this manual for supporting the machine.
- When implements or attachments are used with a machine, always follow safety precautions listed in the implement or attachment operator's manual.



Service Drive Belts Safely

When servicing drive belts, always observe these precautions:

- Avoid serious injury from hand or arm entanglement. Never attempt to clean, check, or adjust belts while the machine is running. Always shut off the engine, set the parking brake and remove the key.
- Do NOT attempt to clean belts with flammable cleaning solvents.

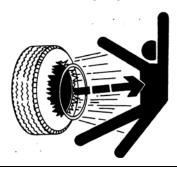


Service Tires Safely

Explosive separation of a tire and rim parts can cause serious injury or death.

- Do NOT attempt to mount a tire unless you have the proper equipment and experience to perform the job.
- Always maintain the correct tire pressure.
- Do NOT inflate the tires above the recommended pressure.
- Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.

- When inflating the tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of over the tire assembly. Use a safety cage if available.
- Check wheels for low pressure, cuts, bubbles, damaged rims, or missing lug bolts and nuts. NEVER fill a damaged tire or one that is missing lug bolts or nuts.



Pay Close Attention to Notes

- Throughout the manual, information that needs to be emphasized is set apart with either a "NOTE!" or "IMPORTANT!" heading.
- Please be sure to carefully read this information, as it usually indicates a situation that could cause machine damage.



Maintain Your Machine

- It is crucial you maintain your machine in proper working condition.
- Perform all scheduled maintenance and repairs in a timely manner.
- Do NOT perform unauthorized modifications to the machine as these could impair the function and/or safety of the machine and affect machine life.

Use Safety Lights and Devices

Slow moving tractors, self-propelled equipment and towed implements or attachments can create hazards when driven on public roads. They are difficult to see, especially at night.

- Whenever you drive on public roads, use flashing lights and turn signals according to local regulations.
- To increase visibility, use the lights and devices provided with your machine.
- Keep safety items in good condition.
- Replace missing or damaged items.



Additional Safety for this Machine

When operating this machine:

- Do NOT climb or ride on this machine at any time.
- Do NOT let anyone stand between the machine and the tractor.
- Make sure that everyone is clear of the machine prior to and during operation.
- Keep all shields in place.
- Keep all fingers, feet, and loose clothing away from moving parts.
- Do NOT make adjustments or attempt any maintenance while the machine is in operation.

When working on this machine:

- Periodically check all nuts and bolts for tightness.
- Make sure the SPC is supported using its storage legs, even when the machine is attached to the tractor.
- Use extreme caution when changing and handling blades. New blades are extremely sharp, and even used blades can cut if handled incorrectly.

Safety Decals

Safety decals identify specific hazards, as well as general safety. A signal word (ADANGER, AWARNING, or ACAUTION) is included on each decal to alert you to the severity of the hazard.

Please note the following about the decals:

- Keep them clean and legible.
- Never remove a safety decal from the machine.
- When you replace a part with a safety decal, also replace that decal.

- For replacement decals, call your AMADAS dealer.
- Replacement safety decals are available free of charge.

Safety decals used on this machine are shown on the following pages. Decal locations are also included.

Decals

ACAUTION

Do not operate this machine until you have read and understood the operator's manual. If you do not have a copy of the manual, contact your AMADAS dealer.

Manuals are available for printing at:

www.amadas.com

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ACAUTION

- 1. Keep all shields in place.
- 2. Stop engine and remove key before leaving operator's seat to adjust, lubricate, clean, unclog, or perform other work on the machine.
- 3. Wait for all motion to stop before servicing this machine.
- 4. Keep hands, feet, and clothing away from moving parts.
- Keep off equipment unless seat or platform for operation is provided.
- Keep all persons off of machine.
- Make certain everyone is clear of machine before starting engine. 80936

▲ DANGER



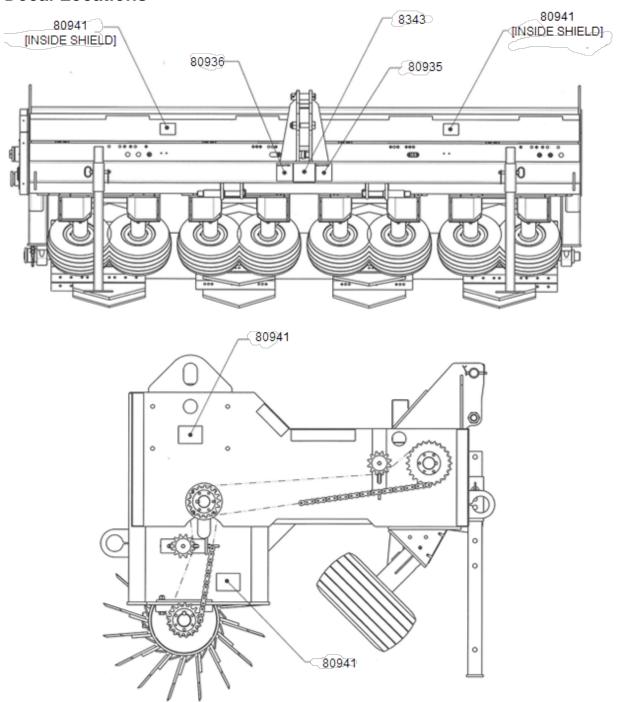
ENTANGLEMENT HAZARD

To avoid serious injury or death:

 Operate this machine only when all shields and guards are securely in place.

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Decal Locations



NOTES_____

2.

Preparation_

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Overview

Your Hi-Speed Cotton Stalk Puller/ Chopper has been carefully prepared prior to being shipped. Additional preparation is required, however, before the machine is ready for use. Some of this preparation is usually performed by the dealer; the rest will need to be done by you, the user. Please follow the instructions in this chapter to inspect your SPC and prepare it for use.

Information in this chapter is intended to prepare your SPC for general use. Chapter 4, *Adjustments*, provides suggestions for adjusting the machine to meet your specific farming needs.



Set Row Width

Amadas Hi-Speed Cotton Stalk Puller/Choppers are delivered from the factory pre-set. The SPC-4 is set for 36", 38". or 40" rows; the SPC-6 is set for 36" or 38" When you order a machine, you specify the desired row width. If the row width of machine needs to be changed, refer to Chapter 4, Adjustments, for specific instructions. On a new machine, this procedure takes approximately four man hours to complete. Allow several additional man hours for changing the row width on a used machine.

Different Model Numbers

This manual covers Hi-Speed Cotton Stalk Puller/Choppers manufactured under model numbers:

CSP01-4 CSP02-4 SPC-4 SPC-6

Minor differences exist between the various models with regard to safety shielding. In addition, the SPC-6 contains six rotors, rather than four, as on the other three models. While the SPC-4 is the model used in most of the pictures and sketches in this manual, the information and instructions apply to all models.

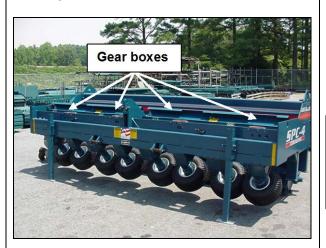
If you have a CSP01 or CSP02, please refer to your parts catalog for information on the safety shields specific to your model.

Dealer Preparation

Initial Inspection

Upon receiving the Hi-Speed Cotton Stalk Puller/Chopper, perform the following inspection:

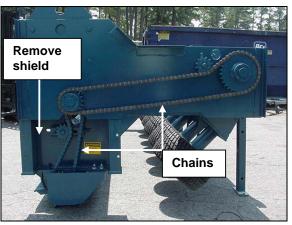
- Examine the machine for transport damage. If the machine is damaged in any way, contact **Amadas Industries** at once.
- 2. Open the top covers and visually inspect all gearboxes for oil leaks.



3. Remove the left side shield (facing machine) and visually inspect the tension of the chain. The chain should have 1/2" to 1" play or movement in the slack side.



 Remove the lower shield and inspect the lower chain. The chain should have 1/2" to 1" play or movement in the slack side.

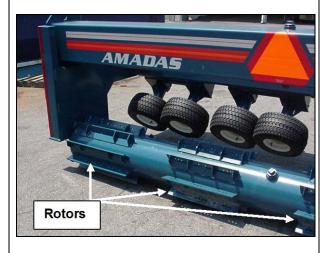


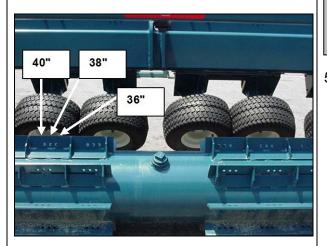
A WARNING

Replace shields!! Never operate machine without shields!!

Install Blades

1. Determine if the blades are to be installed for 36", 38", or 40" rows for the SPC-4 (top and middle photo) or 36" or 38" rows for the SPC-6.





- 2. Determine which bolt holes to use for the correct row width.
- Install the blades with the flat side pointing toward the tires. The blade cuts and sharpens itself better with the flat side "leading." In the following photo, blades are installed for 40" rows.



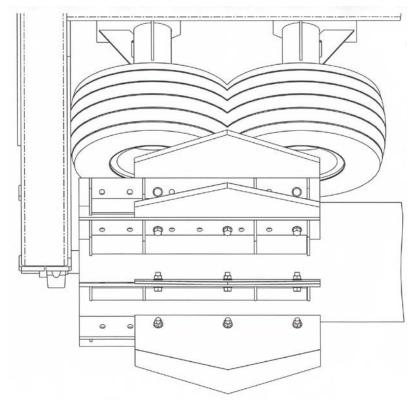
4. Install bolts from the flat side of the blades and torque to 90 ft-lbs.

AWARNING

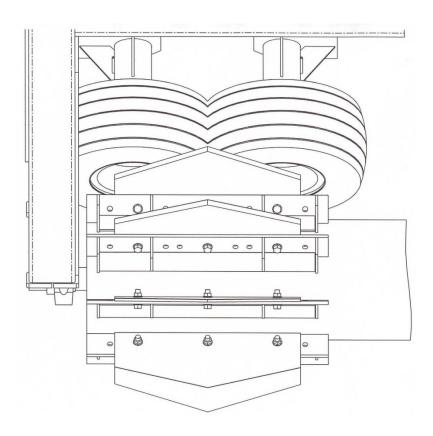
Use caution when tightening the bolts. The edges of the blades are sharp and if your hand slips while tightening, you can seriously cut yourself.

5. To verify that the blades are in the correct holes, make sure the center of each blade is lined up with the compressed portion of the tires. Refer to the drawings on the following page for blade positions.

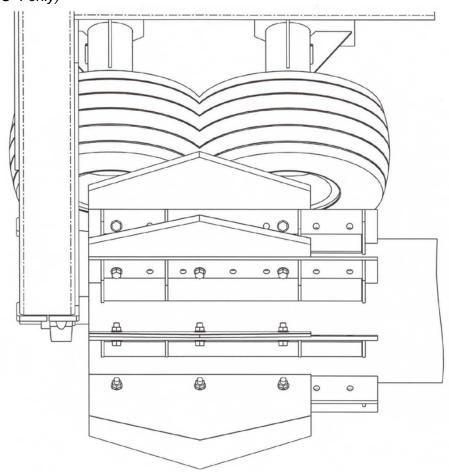
Blade Positions 36" row



38" row



Blade Positions 40" row (SPC-4 only)

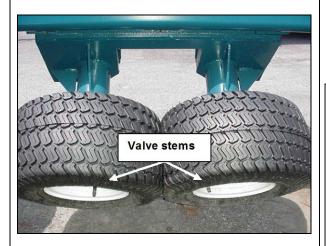


User Preparation

Tire Pressure

Generally, 26-32 PSI is required to hold stalks and prevent them from slipping through the wheels. In softer soil, and with shorter cotton, less pressure is required than in harder soil and with taller cotton.

1. As a starting point, inflate tire pressure to 26 PSI.



2. Increase the tire pressure until the machine is pulling stalks out of the ground.





NOTE! Do not exceed 32 PSI for the tires. If 32 PSI is not enough air pressure for pulling stalks, you will need to wait until soil conditions change (e.g., it rains and the soil softens).

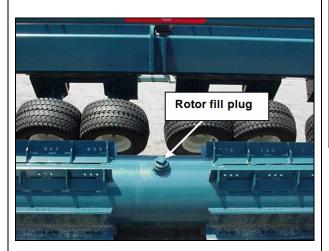
While you may need to wait for the soil to soften, wet stalks are more difficult for the machine to remove. Early morning dew, rain, or other wet conditions can cause the stalks to slip in the tires and we recommend that you not try to pull and chop stalks while they are wet.

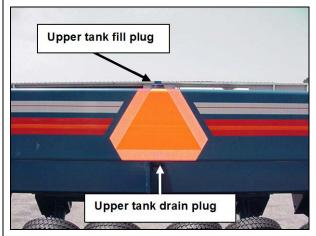
Operating with a lower tire pressure will make the machine easier to pull through the field. We recommend operating at the lowest tire pressure needed to do the job.

Weight Addition

The additional amount of weight required to chop the stalks depends on the type of soil, soil hardness, and the size of the cotton stalks.

We recommend starting with the rotor filled and the upper tank empty, unless you are working with very hard "sunbaked" soils and/or large cotton stalk diameters. Use an ordinary hose to add the water.





IMPORTANT! Before adding water, determine how much anti-freeze needs to be added to the tank. Use the chart on the back of the anti-freeze bottle to figure the amount needed, based on your weather conditions. Generally, a 50% mixture will be more than adequate for most regions.

For the SPC-4, the upper tank holds 87 gallons of water; the rotor tank holds 66 gallons. The SPC-6 tanks hold 1.5 times as much water.

If you choose not to use anti-freeze, it is imperative that you drain all water from the tank before the temperature reaches freezing. If the water freezes, serious damage will result to the tanks from the expansion of the frozen water.

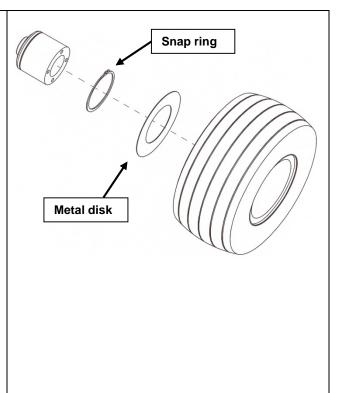
Dirt Shield Kit (Optional)

A dirt shield kit is available for purchase from your dealer. This kit is used only to keep wheel wells clean and will not affect the performance of your machine.

Generally, the dirt shield kit will have been installed at the factory. If you will be installing this kit yourself, refer to the following instructions and the sketch:

For each wheel:

- 1. Remove the wheel.
- 2. Install the snap ring onto the shaft.
- 3. Slide the metal disk onto the shaft.
- 4. Bolt the wheel back in place.
- 5. Repeat for each axle.



NOTES_

3 Operation___

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Important Information

Please read the following information before operating your Hi-Speed Cotton Stalk Puller/Chopper. This information will assist you in getting the most efficient performance from your machine.



Speed

The Hi-Speed Cotton Stalk Puller/Chopper usually performs best when operated between 6 and 10 MPH. Although it works well at slower speeds, the percentage of stalks pulled is usually highest when operated in this range. This is due, in part, to the "zipper" effect that occurs as the stalks are pulled from the ground. As the ground speed increases, the velocity of the stalks exiting the ground increases. The result is increased soil disturbance in all directions. Depending on the plant density, this disturbance can actually decrease the pulling force required for each plant as well as improve the chopping action of the machine in hard soil conditions.

We do NOT recommend running at speeds in excess of 10 MPH in most conditions. At very high speeds, many operators have difficulty keeping the pulling wheels in line with the rows. If the operator veers too far off of the row centers, the cotton stalks will pass beside the pulling wheels rather than through them. This results in stalks that are cut off near the base rather than pulled out of the soil along with their roots. Regrowth can occur under this condition.

Planting Lines

The four-row Cotton Stalk Puller/Chopper (SPC-4) works best when operated in fields planted with 4, 8, or 12 row planters. In fields planted with 6 row planters, you have the problem of 2 odd rows to be picked. Typically, a high percentage of stalks in the odd rows will be chopped off near the base of the plant but will not be pulled due to row spacing inaccuracies between the two sets of odd rows. One solution to this problem is to make a pass to pick up just the two odd rows before doing another four row pass. We recommend you avoid running the machine in a way that creates "odd rows.

The six-row Cotton Stalk Puller/Chopper (SPC-6) works best with 6 or 12 row planters.

Ground Density

The SPC performs best when the ground is neither extremely wet nor dry. In wet soil conditions, the ground can actually be so soft that the chopping blades push the stalk down into the ground, rather than shear them into pieces. In hard, dry soil conditions, the ground can be so hard that the stalks break off at the base rather then pull out from the ground. The best solution in either case is to wait until conditions improve. Refer to Chapter 4, *Adjustments*, for guidelines when operating in extreme conditions.

Transportation

The SPC-4 Cotton Stalk Puller/Chopper is 13'3" (159") wide. The SPC-6 is significantly wider. Please be aware of this width when you transport the machine behind your tractor.

Do **NOT** exceed 25 MPH when towing your SPC. If you have questions about transporting your machinery while it is attached to your tractor, please refer to the owner's manual for your tractor.

NOTE! Your SPC was equipped with Slow Moving Vehicle symbols at the factory. Please make sure these symbols are kept in good condition, and that they are cleaned before you transport the machine.



Machine Operation

Hitch

AMADAS Hi-Speed Cotton Stalk Puller/ Choppers are compatible with the following hitches:

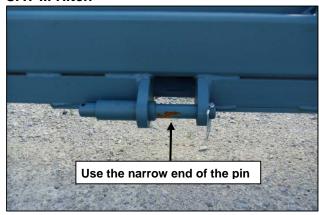
CAT III, CAT IVN

After reading the information on this page, refer to the photos on the next page for hitch point positioning.

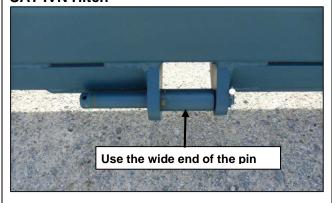
Lower Hitch Points

There is a narrow end and a wide end on each of the pins for the two lower hitch points. Use these pins as follows:

CAT III Hitch



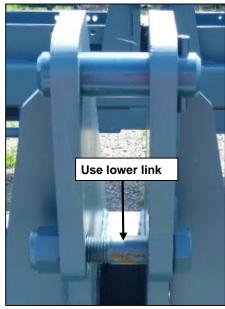
CAT IVN Hitch



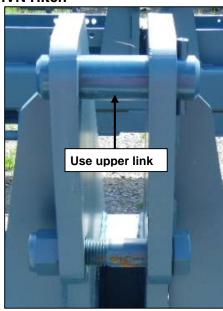
Upper Hitch Point

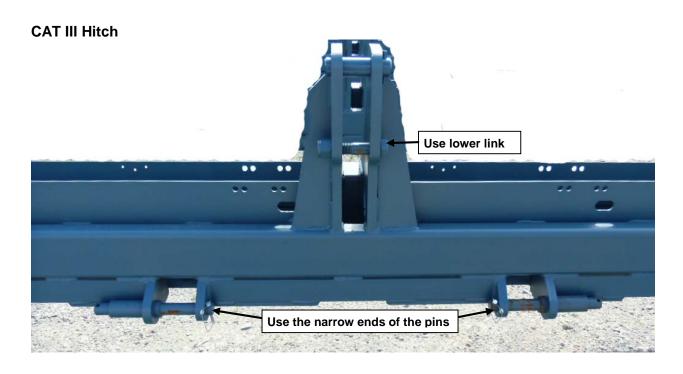
There are two hitch links on the upper hitch point as shown in the picture. Use as follows:

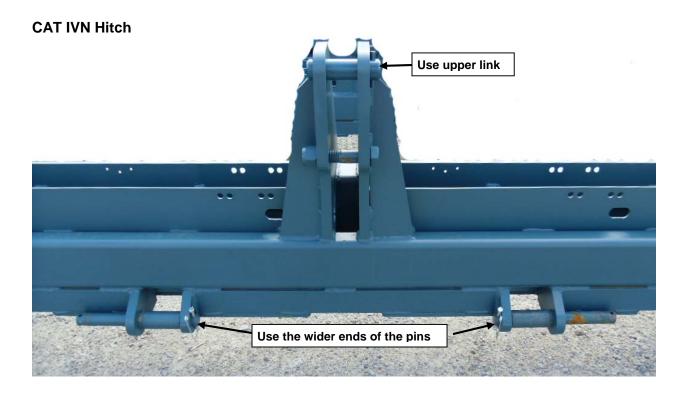
CAT III Hitch



CAT IVN Hitch







Attach to Tractor

- 1. Place the pin for the "top link" in the upper hole.
- 2. Back the tractor up to the machine and lift it with the quick hitch.
- 3. Secure the latches on the quick hitch.
- 4. Lift machine slightly, following safe lifting procedures.
- 5. Remove the pin(s) on the support legs, raise them all the way and replace the pin(s).



Adjust Height

Adjust the top link of the three point hitch so that the frame of the machine is parallel to the ground.

The angle of the machine to the ground affects its performance. See Chapter 4, *Adjustments*, under "Inclination" for more information on machine angle.

Operate Machine

IMPORTANT! To make sure you are using your Cotton Stalk Puller/Chopper properly and effectively, read the "Important Information" section at the beginning of this chapter before operating the machine.

1. Lower the machine.



- Go forward, accelerating as fast as possible. The machine is more effective at high speeds. The sooner the machine is moving quickly, the more efficiently it works.
- Lift the machine to turn. If a turn is made with the roller still in the ground, it can cause substantial side loading on the lower bearing housings. This can break the lower bearing housings.



4. Make the turn and lower the machine again.



NOTES _____

4 Adjustments_

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Weight Addition

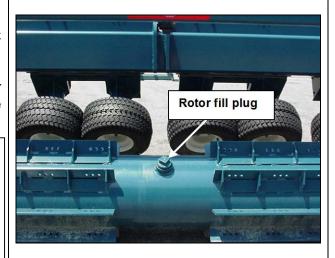
The amount of weight required by the SPC depends on the type of soil, soil hardness, and the size of the cotton stalks. Generally, we recommend starting out with the rotor filled and the upper tank empty. Adjust the weight under the following conditions.

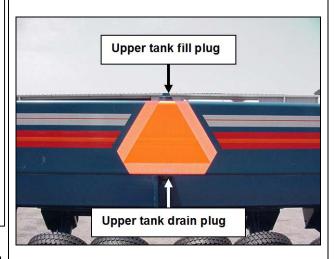
IMPORTANT! Before adding water, determine how much anti-freeze needs to be added to the tank. Use the chart on the back of the anti-freeze bottle to figure the amount needed, based on your weather conditions. Generally, a 50% mixture will be more than adequate for most regions.

For the SPC-4, the upper tank holds 87 gallons of water; the rotor tank holds 66 gallons. The tanks of the SPC-6 hold 1.5 times as much as the SPC-4.

If you choose not to use anti-freeze, it is imperative that you drain all water from the tank before the temperature reaches freezing. If the water freezes, serious damage will result to the tanks from the expansion of the frozen water.

If	Then	
the soil is very	add more weight by	
hard or "sun	filling the upper tank.	
baked"		
the diameter of	add more weight by	
the cotton stalk	filling the upper tank	
is large		
the machine is	check condition of	
pulling stalks out	blades; if worn replace	
of the ground but	Check soil conditions; if	
not chopping	too wet, wait for dryer	
them	conditions	
	Check rotor	
	engagement; lengthen	
	top link if rotor needs to	
	be lower	

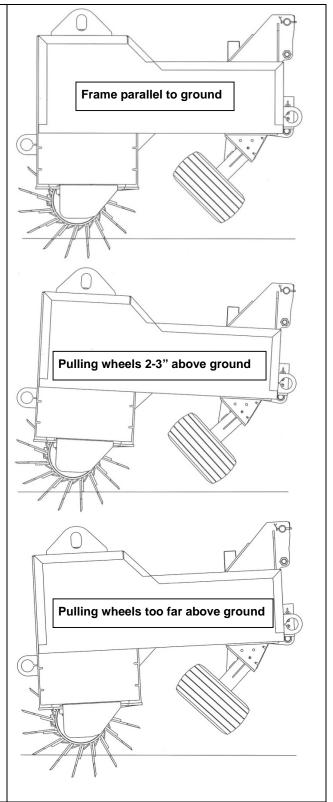




Inclination

Generally, the top link on the three point hitch should be adjusted so that the frame of the machine is parallel to the ground (top sketch). Keep in mind the following:

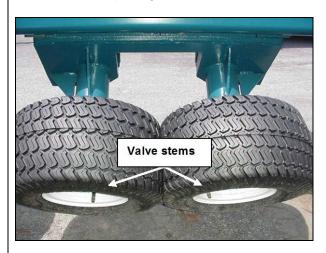
- If the cotton stalks are very short or have been standing for a long period and become brittle, you may need to shorten the top link until the bottom of the pulling wheels are 2 to 3" above the ground (middle sketch). This should result in improved performance.
- Take care when shortening the link. With the tires lowered, the wheels are more likely to hit the ground on uneven terrain. Potentially, damage to the wheels and/or shafts could occur.
- If the link is too long, the wheels will be raised up and not be able to grasp shorter stalks (bottom sketch).



Tire Pressure

Generally, 26-32 PSI is required to hold the stalks and prevent them from slipping. In softer soil and with shorter cotton, less pressure is required than in harder soil and with taller cotton.

As a starting point, inflate tire pressure to 26 PSI. Increase tire pressure as needed until the machine is pulling stalks.





NOTE! Do NOT exceed 32 PSI for the tires. If 32 PSI is not enough air pressure for pulling stalks, you will need to wait until soil conditions change (e.g., it rains and the soil softens).

While you may need to wait for the soil to soften, wet stalks are more difficult for the machine to remove. Early morning dew, rain, or other wet conditions can cause the stalks to slip in the tires and we recommend that you not try to pull and chop stalks while they are wet.

Operating with a lower tire pressure will make the machine easier to pull through the field. We recommend operating at the lowest tire pressure needed to do the job.

Rotor Distance from Pulling Wheels

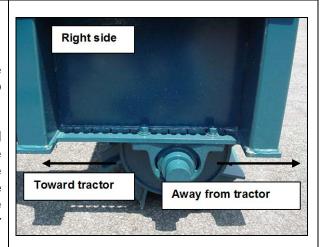
For average stalks and soil conditions, the factory setting should be satisfactory to completely pull and chop the stalks.

If the stalks are not being pulled and chopped, however, you may need to change the distance between the rotor and the pulling wheels. Generally, the longer the root, the further back the rotor needs to be from the pulling wheels. Instructions for moving the rotor are on the following page.

If	Then
stalks are flying	move the rotor
over the rotor and	towards the tractor.
not being chopped	
the stalks are being	move the rotor
chopped before	away from the
they are completely	tractor.
pulled	

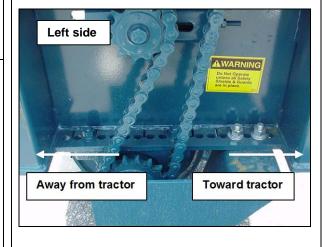
Additionally, check your stalks by examining the root. If the information on this page does not solve the problem, refer to Chapter 6, *Troubleshooting*

If	Then
the root is tight in the ground but chopped	it is slipping through the pulling wheels, is breaking off, or completely missing the wheels.
the root is in place (facing down) but loose in the soil	it is starting to pull but the blade is catching the stem before it is extracted from the ground. Or, the stalk could be slipping through the wheels slightly. Another possibility is that the tires have worn to the point that they no longer have sufficient grip.





Replace shields before operating machine!

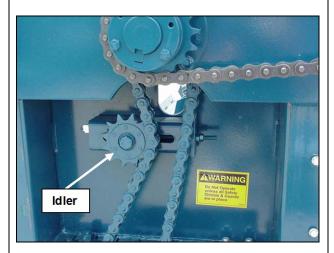


Adjust the Rotor

A CAUTION

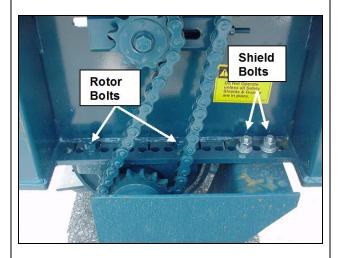
Take extreme caution when you change the rotor position. Due to the weight of the machine, this procedure must be done with the tractor attached to the Stalk Puller/Chopper. Two people are required to perform this adjustment.

- 1. Remove the shield covering lower chain.
- 2. Loosen the idler and push it back as far as possible.

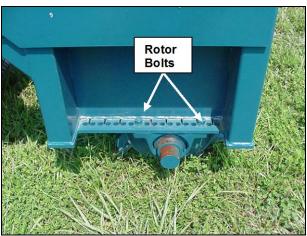


NOTE! If you are moving the rotor more than two holes, also remove the idler and chain.

3. Remove two shield bolts holding chain drive shield.

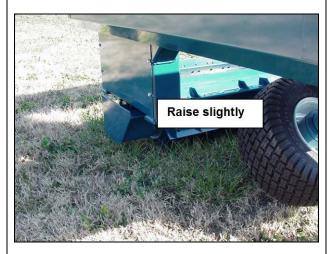


4. Remove the four bolts securing the rotor to the frame.



Adjust the Rotor

5. Start the tractor and raise the machine slightly to minimize the weight of the machine on the bearings. Make sure the weight is not totally off of the bearings.



Move the tractor straight forward or backwards by inches until the hole in the bearing lines up with the desired hole in the frame.



- 7. Put a bolt in the hole and install the nut. Do NOT tighten.
- 8. Pull forward slightly with the tractor so that the bearings are set to the back of the slot.

- 9. Lower the machine so that the full weight of the machine is on the rotor.
- 10. On the opposite side of the machine, put the bolt and nut in but do NOT tighten. It may be necessary to inch the tractor forward or backward to line up the holes.
- 11. Install the remaining two bolts.
- 12. Tighten the four bolts.
- 13. Replace the chain and idler if removed.
- 14. Re-tension the chain. If the rotor has been moved all the way forward, it may be necessary to shorten the chain several links.
- 15. Replace all shields.

A WARNING

Replace all shields before operating your machine!!

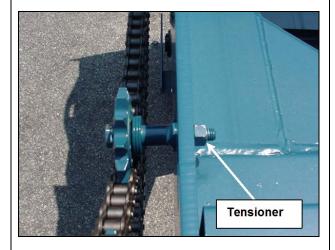
Chain Tension

Both upper and lower chains should have between 1/2" to 1" of movement in the slack side of the chain. If there is more slack than the recommended 1/2 to 1", adjust the tensioner until there is the correct amount of slack.

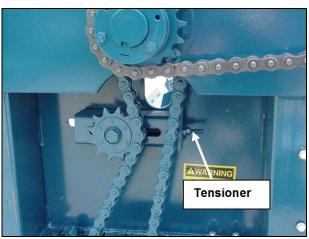
To access the upper chain, remove the left hand shield.



The upper chain tensioner is shown below:



To access the lower chain, remove the smaller shield. The lower chain tensioner is shown below:



A WARNING

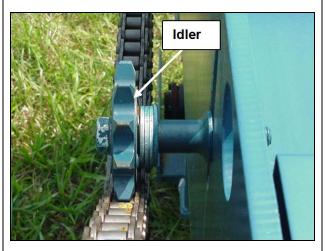
Replace all shields before operating your machine!

Before beginning this procedure, be sure to have the correct length input shaft. If not, order the appropriately sized shaft from the dealer, specifying the row width you want to change the Cotton Stalk Puller to - 36", 38" or 40" for the SPC-4, or 36" or 38" for the SPC-6. (Refer to the *Parts Catalog* for the part number of the shaft needed.)

1. Remove upper shield.



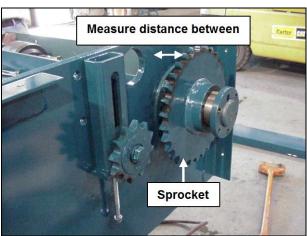
2. Remove the upper idler



3. Remove the upper chain.



4. Measure distance from frame edge to inside edge of sprocket (top photo).



5. Remove sprocket.

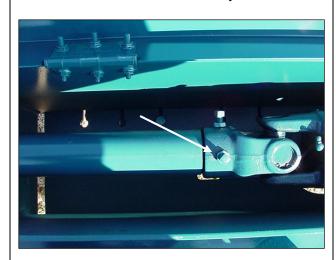


Replace all shields before operating your machine!

6. Remove bearing lock collar behind sprocket. (Photo shows both sprocket and lock collar removed.)

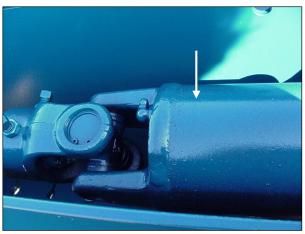


- 7. Open top cover.
- 8. Remove set screw on clutch yoke.

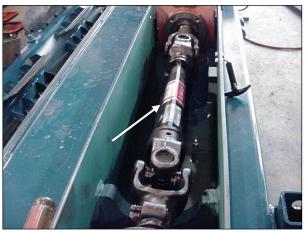


9. Remove the main drive shaft.

10. Remove the clutch assembly (middle photo).



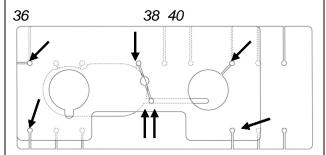
11. Remove all remaining drive lines.



12. Remove shield covering both universals.

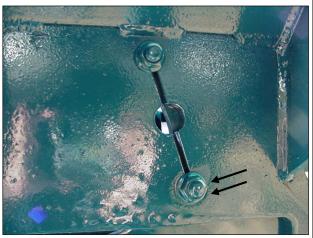


13. Referring to the sketch, remove the five bolts on the head unit indicated by the arrows on the sketch. (The sketch shows the bolt pattern for the SPC-4. The SPC-6 is similar, but only has the 36" and 38" holes.)

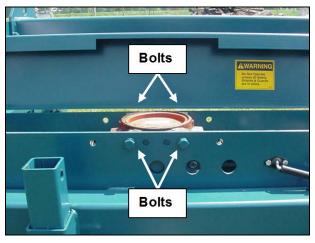


36 38 40
Left universal Right universal (facing cotton stalk puller)

14. Loosen, but don't remove, the sixth bolt indicated by double arrows on the sketch and in the bottom photo.



15. Remove four bolts holding gearbox.



16. Remove shims.

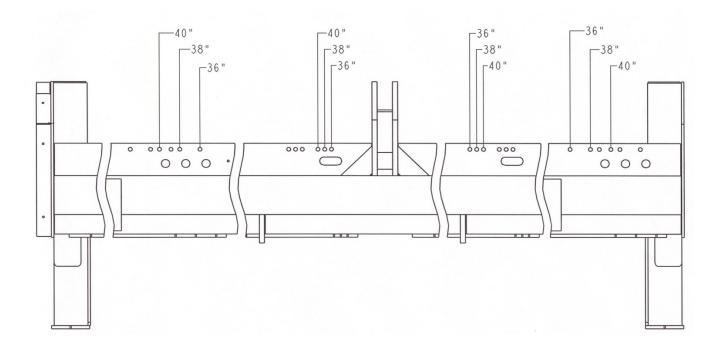


- 17. Referring to sketch below, move the gearbox and head unit to the correct row width position. (The sketch shows the SPC-4 row widths. The SPC-6 is similar, but does not have the 40" row spacing.)
- 18. Replace and tighten all bolts for head unit.
- 19. Replace shims for gearbox.
- 20. Replace and tighten bolts for gearbox.
- 21. Repeat Steps 13-22 for remaining head units.
- 22. Replace drive lines. Make sure all grease fittings line up.
- 23. Replace clutch.
- 24. Slide new shaft into place. Tighten set screw.

- 25. Tighten bearing lock collar.
- 26. Replace sprocket.
- 27. Align sprocket using distance measured in Step 4.
- 28. Replace chain.
- 29. Replace idler.
- 30. Re-tension chain.
- 31. Replace shield.
- 32. Move or install blades on rotor to correct row width.

ACAUTION

Complete all instructions for changing row width and replace all shields before attempting to use the machine.



5 Maintenance_

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Maintenance

Gear Boxes

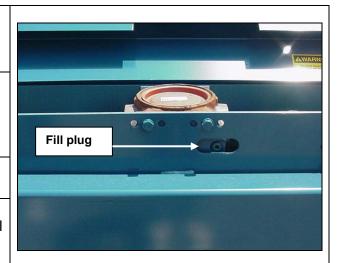
Change Oil

- After initial 50 hours
- Every 500 hours

Use a standard 90 weight non foaming oil with EP additives and fill to the bottom of fill plug (see photo)

Check Oil

- Beginning of season
- Every 50 hours (visually inspect daily for oil leaks)
- End of season after cleaning



PTO Shafts

Lubricate

6 grease points

- Beginning of season
- Daily (every 10 hours)
- End of season, after cleaning

Use a standard multipurpose grease.



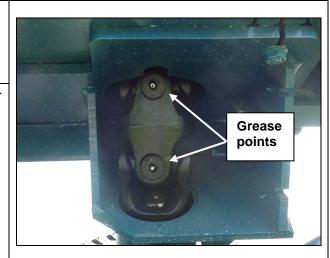
Double Universals

Lubricate

2 grease points per universal

- Beginning of season
- Every 50 hours
- End of season, after cleaning

Use a standard multipurpose grease.



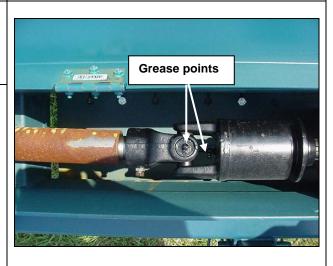
Clutch

Lubricate

2 grease points

- Beginning of season
- Daily (every 10 hours)
- Anytime the ratchet clutch has been activated for extended periods
- End of season, after cleaning

Use a standard multipurpose grease.



Chains

Lubricate

- Beginning of season
- Every 50 hours
- End of season, after cleaning

Use a standard 30 weight oil.



Rotor Bearings

Lubricate

2 grease points

- Beginning of season
- Every 50 hours
- End of season, after cleaning

Use a standard multipurpose grease.



Blades

Typically, blades need to be replaced every 500-1000 acres. Ground conditions will also affect the life of the blades. New blades are shown in the photo.

Generally, replace blades when:

- the cutting edge is paper thin and/or
- the cutting edge begins to curl or bend.



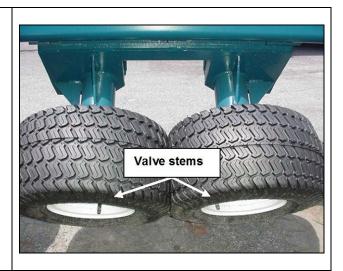
Lubrication Schedule

Location	Type of Lubricant	Beginning of Season	Daily	End of Season
PTO Shafts	Multi-purpose grease	X	X	Х
Double Universals	Multi-purpose grease	X	X	Х
Clutch	Multi-purpose grease	Х	Х	Х
Chains	30 weight oil	X	Every 50 hours	Х
Bearings	Multi-purpose grease	X	Every 50 hours	X

End of Season Storage

Remove Wheels

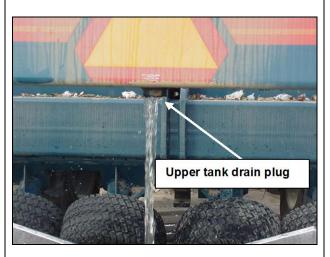
- 1. Deflate tires.
- 2. Remove valves from valve stems.
- 3. Remove all four lug bolts from each wheel.
- 4. Remove wheels.
- 5. Replace valves in valve stems.
- 6. Reinflate tires to approximately 5 PSI.
- 7. Store indoors (out of direct sunlight) for maximum life.

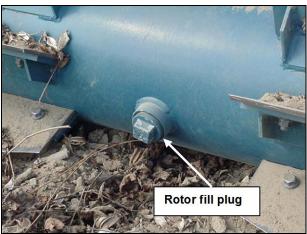


Prepare Tanks

Prepare tanks for storage by preventing the water from freezing by one of the following:

Drain all water from the tanks. The upper tank drain plug is shown in the photo. For the rotor, remove the fill plug and rotate the rotor until the plug is pointing toward ground.





Or

Add anti-freeze to water. Refer to back of anti-freeze bottle for proper mixture for your region. Generally, a 50% solution should be more than adequate. For the SPC-4 model, the capacity of the rotor is 66 gallons; the weight tank holds 87. The SPC-6's tanks hold 1.5 as much as the SPC-4.

General Cleaning

- 1. Remove the wheels and reinstall lug bolts into hubs.
- 2. Remove the shields covering the double universals.



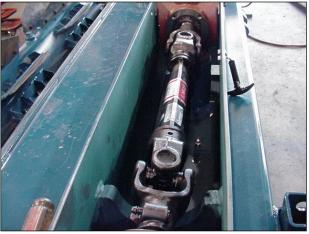
3. Remove the shields covering the upper and lower chains.



- 4. Open all other shields.
- 5. Using pressurized air, blow entire machine to remove all dirt/debris.
- 6. Once majority of debris is removed by air, using a low pressure water hose or indirect water pressure, clean machine.

IMPORTANT! If using pressure washer, do NOT direct water spray at bearings. This can damage their seals, causing premature failure.

- 7. Spray (at low water pressure) the cavities in the stalk puller heads until the water discharge from the drain hole is clear.
- 8. Pressure wash the pulling wheels after they are removed.
- 9. Spray all drivelines, universal joints, and exposed shafts with a lightweight oil.



10. Replace all shields before storing machine.

6 Troubleshooting_

Problem	Cause	Correction
A large number of stalks are being chopped off near the base but not pulled out	Rows are planted in something other than 4, 8, or 12 row planters (SPC-4) or 6 or 12 row planters (SPC-6) and passes are being made over an odd number of rows.	Operate machine over four rows, then make a pass to pick up odd rows before making another four row pass
	Soil is too hard	Wait for rain or irrigate to soften soil
		Add more weight to the machine by filling the upper tank with water
Stalks are being pulled out, but pushed into the ground	Ground is too soft or soil too wet	Wait for soil to dry some and ground to harden
instead of chopped		Reduce weight by letting some of the water out of the machine
Stalks are breaking off before being pulled out	Cotton stalks may be very short or are very brittle	Shorten the top link of the hitch so that the bottom of the pulling wheels are 2" to 3" above the ground
Wheels are hitting the ground	Top link of hitch is too short	Lengthen top link so that wheels are further off ground
Stalks are flying over the rotor and not being chopped	Rotor is too far from the pulling wheels	Move rotor closer to tractor
Stalks are being chopped before they are completely out of the ground	Rotor is too close to the pulling wheels	Move the rotor further away from the tractor
	Stalk is missing wheels completely	Make sure machine is operating over four rows

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Problem	Cause	Correction
Root is still in the ground but stalk is chopped	Stalk is slipping through the pulling wheels	Inflate tires more (do not exceed 32 PSI)
	Stalk is breaking off	Make sure ground is soft enough and enough weight is in tanks
Root is in place (facing down) but loose in soil	The blade is catching the stem before it is pulled from the ground	Move rotor away from pulling wheels
	Stalk is slipping through the wheels	Inflate tires more (do not exceed 32 PSI)
	Tires are too worn to grip stalks	Replace tires

NOTES _____

ONE-YEAR LIMITED WARRANTY For AMADAS INDUSTRIES STALK PULLER/CHOPPER

A. General Provisions

The Warranties described below are provided by AMADAS INDUSTRIES ("AMADAS") through its authorized dealers to the original purchaser of each new AMADAS Stalk Puller / Chopper. AMADAS will repair or replace, at its option, any part covered under warranty which is found to be defective in material or workmanship during the applicable period of warranty. This warranty is applicable only to the cost of the part replaced or repaired and does not cover labor costs involved in installing the replaced or repaired defective part.

B. What is Warranted?

All parts of any new AMADAS Stalk Puller / Chopper are warranted for 12 months. The warranty period will begin when the Stalk Puller / Chopper is delivered to the purchaser. AMADAS will repair or replace, at its option, any new part or component under the above warranty, if a defect in material or workmanship appears in such part or component and is reported to AMADAS before the expiration of the applicable equipment warranty.

Used equipment is not warranted by AMADAS unless it is specifically covered by a separate warranty document. The above warranties cover only defective material and workmanship. The warranties do not cover any depreciation or failure caused by normal wear, lack of proper maintenance or use, misuse, lack of proper protection during storage, or accident. The purchaser shall pay all costs of routine maintenance and/or replacement of maintenance and wear items.

C. Unapproved Service or Modification

All Obligations of AMADAS under this warranty are terminated if the Stalk Puller / Chopper is modified or altered in ways not approved by AMADAS.

D. Securing Warranty Service

To secure warranty service, the purchaser must (1) report the product defect and request repair within the applicable warranty period, (2) present evidence of the date of delivery of the Stalk Puller / Chopper, and (3) make the Stalk Puller / Chopper available to an AMADAS authorized dealer within a reasonable period of time.

E. No Dealer Warranty

The selling dealer makes no warranty of his own on any item warranted by AMADAS, and makes no warranty on other items. The dealer has no authority to make any representation or promise on behalf of AMADAS, or to modify the terms or limitations of this warranty in any way.

F. What are your Responsibilities?

- a. Read the operator's manual before operating the equipment.
- b. Perform all necessary maintenance as described in the operator's manual.
- c. Deliver the machine to an AMADAS authorized dealer at your expense during normal working hours for any needed warranty services.
- d. Contact an AMADAS authorized dealer promptly on any claim for warranty service.
- e. Sign the AMADAS machinery delivery form, which will be given to you by the dealer.

G. Disclaimer

There are no warranties that extend beyond the description here. ANY WARRANTIES OF MERCHANTA-BILITY AND FITNESS FOR ANY PARTICULAR PURPOSE ARE SPECIFICALLY DISCLAIMED AS ARE ALL OTHER REPRESENTATIONS TO THE PURCHASER. AMADAS specifically excludes any liability on behalf of the company for any incidental or consequential damages including, but not limited to, crop loss, loss of profits, rental of substitute equipment, or other commercial losses. AMADAS shall not be responsible for expenses or inconveniences that you might incur or experience with respect to the AMADAS Stalk Puller / Chopper, nor shall AMADAS be liable for defects, damage, or failures caused by improper storage, unreasonable use, or abuse, or accident, including the failure to provide reasonable and specified maintenance. This warranty applies only to the original purchaser of the equipment. Because some states do not allow the exclusion of limitations of incidental or consequential damages, the above limitation may not apply to you. This warranty gives you specific legal rights. You may also have other rights, which vary from state to state. Where there is a conflict between a provision of this warranty and the provision of any state, the state legislation prevails.

